Foreword

This volume is the Proceedings of the Fifth Symposium on Antarctic Meteorites, which was held on February 21 and 22, 1980 at the National Institute of Polar Research (N.I.P.R.). As it was so in the preceding Fourth Symposium, this Fifth Symposium also was internationally opened, and meteorite samples discussed there are those retrieved by the members of the Japanese Antarctic Research Expedition from Meteorite Ice Field near Yamato Mountains and by the members of Japan–U.S. joint parties from Victoria Land, both in the Antarctic Continent. In addition, two papers on Murchison C2 chondrite were presented to the Fifth Symposium in relation to the microstructures of carbonaceous chondrites in general.

Thus, the total number of scientific papers contained in this volume amounts to 26. These papers are so arranged in the order of sequence as 2 papers on the Antarctic field works to find and retrieve Antarctic meteorites, 8 papers on petrology and mineralogy, 7 papers on chemistry, 6 papers on physical properties and metallography, all on Antarctic meteorites, and then a paper on a chondrite parent body model and 2 papers on Murchison C2 chondrite. Since the Antarctic meteorite collections cover a wide variety of different kinds of meteorites and these meteorite samples have been collected, stored and handled with the best practicable care to minimize artificial contaminations, reliable chemical, petrographical and physical data of these meteorites are now going to lead to the presentation of possible models of meteorite parent bodies.

The Japanese Antarctic Research Expedition team, 1979–1980, achieved a great success of colleting new Antarctic meteorites from Meteorite Ice Field again. Although these newly collected Antarctic meteorites are now still under the preliminary examination process, it appears that their total number amounts to as many as about three thousands. According to results of the preliminary examination, the new collections of Antarctic meteorites in 1979–1980 also cover a wide variety of meteorites and contain some unique meteorites. Results of studies on these new Antarctic meteorites will be reported, together with those on the previously collected ones, to the N.I.P.R. annual symposia on Antarctic meteorites in the future.

Researches of Antarctic meteorites are being steadily developed and this volume is No. 5 publication of the resume of synthetic studies on these Antarctic meteorites. It still seems, however, that a large number of key problems regarding meteorites and their relationship with the evolution of solar system remain unresolved. I hope that this volume also could be a milestone in the research route of meteoritic sciences.

November 1980

Takesi NAGATA, Editor
Director, National Institute of
Polar Research